Program-Title	San DIego Rocket Project		STEM Inventory	Entry#	308
Org-Type	Higher-Education-based				
Lead	Flometrics	PoC	Steve Harrington		
PoC-Phone	760-476-2770 x510	PoC-Email	sharring@flometrics.com		
Address	5900 Sea Lion Place Suite 150 Carlsbad CA 92010				
URL	www.sdsurocket.org				
Service-Region	San Diego County				
Type	Student Program				
Subjects	Engineering				
Level	Undergraduate				
Other-Objectives	To develop the next generation of Americas top rocket scientists and engineers by exposing students to the complete design build fly cycle in two or three semesters.				
Served-per-Year	Oct-40	Demographics			
Content	Students build and fly liquid and hybrid rockets.				
Outcomes	Better engineers.				
Started	2003	Funded-Through	N/A		
Length	Ongoing	Cost	$10,000/yr		
Primary-Funding	Other	Primary-$	FUnding is on an ad hoc basis		
Materials	ROcket parts				
Other-Funding	Student fundrasing, NASA spaceGrant, Flometrics				
How-Assessed	By student placement and success in leading aerospace companies.				
Best-Practice-Why	I don't know what best practice is. Testimonial from alumni: There is nothing I can possibly say that will emphasize how vital the SDSU Rocket Project has been to my education and my career. Having been involved with the Rocket Project since conception I feel as if I know every single o-ring and lock washer on every rocket we built (which places each rocket on a level of intimacy also known as marriage). I learned how to design, build, blow-up, launch, and static fire a liquid rocket before I could legally drink. The Rocket Project significantly helped my understanding of head loss from fluid mechanics, shock formation and expansion fans from compressible flow, shock diamonds and interactions in nozzles, heat transfer in combustion chambers, structural loading due to thrust, aerodynamic drag in fluctuating densities, ballistic trajectories, computations in MathCad, testing and handling of flight hardware, propellant slosh in dynamic environments, management and leadership during hard times, and most importantly, it has given me memories that I don't expect to ever be surpassed. I became enthralled by every aspect of rocketry, which became quite apparent to the people interviewing me at NASA's Jet Propulsion Laboratory. The same people I saw on TV land the Mars Exploration Rovers were now looking at me in shock at what the Rocket Project accomplished. It was a bit surreal to have MIT graduates with PhDs working in the propulsion section ask me questions about liquid rockets. I am now working at JPL on a CEV Lunar Reentry Heatshield Test as a Systems Engineer as well as the Mechanical Lead for field testing flight hardware on the Mars Science Laboratory. My technical skills and hands-on experience from the Rocket Project was quickly recognized and praised at JPL, which allowed me to be placed as the Mechanical Lead for Field Testing soon into joining MSL. Not a day goes by still that I don't pray to be involved in a project as educational, technically challenging and rewarding as the SDSU Rocket Project. As much as I enjoy working for NASA, they could never put a rocket up in less than 4 months with 20 undergraduates and a budget equal to 4 iPods. Joey Brown NASA Jet Propulsion Laboratory				
Promising-Practice					
Sponsor		Sponsor-Org			
Sponsor-Phone		Sponsor-Email			
Other-Orgs	AIAA, UCSD, SDSU				